

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A system for transmitting and receiving information, said system comprising:

a first layer transceiver device;

a plurality of second layer transceiver devices; and

an interface connecting said first layer transceiver device and said plurality of second layer transceiver devices,

wherein said first layer transceiver device and said plurality of second layer transceiver devices transmit and receive said information across said interface,

wherein said information comprises data and a time division multiplexed (TDM) signal,

wherein said TDM signal indicates the availability of one of said second layer transceiver devices; and

wherein one of the plurality of second layer transceiver devices is granted access to write said availability based on a detection of assertion of a synchronization signal followed by expiration of a certain amount of delay.

2. (Original) The system of claim 1, wherein said TDM signal comprises a transmit available indicator of whether one of said plurality of second layer transceiver devices can receive said information from first layer transceiver.

3. (Original) The system of claim 1, wherein said TDM signal comprises a receive available indicator of whether one of said plurality of second layer transceiver devices can transmit said information to first layer transceiver.

4-5. (Cancelled)

6. (Previously Presented) The system of claim 1, wherein said certain amount of delay is a calculated amount of clock edges after assertion of said synchronization signal, said calculated amount equal to an address of said first second layer transceiver device minus one.

7. (Previously Presented) The system of claim 1, wherein said plurality of conditions comprises a speed access variable, said speed access variable allowing a high speed transceiver of said second layer transceiver device to write said availability multiple times during a synchronization period.

8. (Original) The system of claim 1, wherein said TDM signal is transmitted and received in-band along with said data over a data stream.

9. (Original) The system of claim 1, wherein said TDM signal is transmitted and received out-of-band from said data in a plurality of separate signals.

10-15. (Cancelled)

16. (Previously Presented) A system for transmitting and receiving information, said system comprising:

an ATM layer transceiver device;

a plurality of physical layer transceiver devices; and

an ATM to physical layer interface module connecting said ATM layer transceiver device and said plurality of physical layer transceiver devices,

wherein said ATM layer transceiver device and said plurality of physical layer transceiver devices transmit and receive data across said ATM to physical layer interface module

using a first plurality of data signals and a first plurality of control signals, wherein at least one of said first plurality of control signals is a time division multiplexed signal,

wherein said ATM to physical layer interface module comprises:

an ATM layer cell availability status device;

and a physical layer cell availability status device,

wherein said ATM layer cell availability status device communicates with said ATM layer transceiver device using a second plurality of data signals and a second plurality of control signals, said second plurality of control signals distinct from first plurality of control signals.

17. (Original) The system of claim 16, wherein said time division multiplexed signal indicates the cell availability of one of said physical layer transceiver devices.

18. (Original) The system of claim 16, wherein said time division multiplexed signal comprises a transmit cell available (TXClav) indicator of whether one of said plurality of physical layer transceiver devices can receive said information.

19. (Original) The system of claim 16, wherein said time division multiplexed signal comprises a receive cell available (RxClav) indicator of whether one of said plurality of physical layer transceiver devices can transmit said information.

20. (Original) The system of claim 16, wherein a first physical layer transceiver device of said plurality of physical layer transceiver devices is granted access to write said availability to said time division multiplexed signal, said access based upon a plurality of conditions.

21. (Original) The system of claim 20, wherein said plurality of conditions comprises a synchronization signal being detected as asserted on the edge of a reference clock and a certain amount of delay being expired.

22. (Original) The system of claim 21, wherein said certain amount of delay is a calculated amount of clock edges after assertion of said synchronization signal.

23. (Original) The system of claim 21, wherein said calculated amount is equal to an address of said first physical layer transceiver device minus one.

24. (Cancelled)

25. (Currently Amended) The system of claim [[24]] 16, wherein said ATM layer cell availability status device communicates with said ATM Layer transceiver device and said physical layer cell availability status device.

26. (Currently Amended) The system of claim [[25]] 16, wherein said communication between said physical layer cell availability status device and said ATM layer cell availability status device comprises a plurality of interface control signals and interface data.

27. (Original) The system of claim 26, wherein a first of said plurality of interface control signals is said TDM signal.

28. (Original) The system of claim 27, wherein a second of said plurality of control signals is said synchronization signal and a third of said plurality of control signals is said reference clock.

29. (Original) The system of claim 28, wherein said interface data is a protocol data unit (PDU).

30. (Original) The system of claim 29, wherein said PDU comprises a header portion, a user defined (UDF) portion, and a payload portion.

31. (Original) The system of claim 30, wherein said UDF portion comprises an address of one of said plurality of physical layer devices.

32. (Previously Presented) A method for transmitting and receiving information, said method comprising steps of:

implementing a first layer transceiver device;

implementing a plurality of second layer transceiver devices; and

providing an interface connecting said first layer transceiver device and said plurality of second layer transceiver devices, wherein said first layer transceiver device and said plurality of second layer transceiver devices transmit and receive said information across said interface, wherein said information comprises data and a time division multiplexed (TDM) signal, wherein said TDM signal indicates the availability of one of said second layer transceiver devices; and

wherein one of the plurality of second layer transceiver devices is granted access to write said availability based on a detection of assertion of a synchronization signal followed by expiration of a certain amount of delay.

33. (Original) The method of claim 32, wherein said TDM signal comprises a transmit available indicator of whether one of said plurality of second layer transceiver devices can receive said information.

34. (Original) The method of claim 32, wherein said TDM signal comprises a receive available indicator of whether one of said plurality of second layer transceiver devices can transmit said information.

35-36. (Cancelled)

37. (Previously Presented) The method of claim 32, wherein said certain amount of delay is a calculated amount of clock edges after assertion of said synchronization signal, said calculated amount equal to an address of said first second layer transceiver device minus one.

38. (Previously Presented) The method of claim 32, wherein said plurality of conditions comprises a speed access variable, said speed access variable allowing a high speed transceiver of said second layer transceiver device to write said availability multiple times during a synchronization period.

39-44. (Cancelled)